

English Summary of
„Bitter Coal - a Dossier on Germany's coal imports”

urgewald & FIAN – April 2013

Abstract

In 2012, 19% of Germany's electricity was produced by burning hard coal and in 2013 new hard coal plants with a capacity of 5,300 MW will go online. Germany's use of hard coal is on the rise. Although 75% of "our" hard coal is imported, the origin of this coal and the associated impacts do not figure in decisions on the construction of new coal-fired power plants and play almost no role in the debate on Germany's energy policies.

In this dossier, urgewald and FIAN have therefore traced the origin of hard coal burned in German power plants. We give an overview of the activities of the five biggest energy suppliers in Germany (RWE, E.ON, STEAG, EnBW, Vattenfall) and the origins of their coal imports. The dossier describes the impacts of coal extraction in the regions and countries (Columbia, Russia, USA, South Africa) supplying the German market.

Germany's Coal Suppliers

When subsidies end in 2018, the last German hard coal mines will be shut down and all hard coal will have to be imported. In the countries supplying Germany with hard coal, coal mining is connected with immense and long-term environmental and social impacts.

Countries of origin of the hard coal processed in German power plants in 2011

country of origin	hard coal exported to Germany in million tons	percentage
1. Columbia	10,55	31,35%
2. Russia	9,57	28,46%
3. USA	5,08	15,10%
4. Poland	2,65	7,86%
5. South Africa	2,64	7,86%
6. Australia	0,21	0,61%
7. Canada	0,04	0,13%
others	2,90	8,63%
total	33,65	100%

Columbia

Over the last years, Columbia has become one of the world's biggest coal exporters and Germany is one of its most important customers. 95% of Colombian coal is extracted for the export market and the sector is almost exclusively controlled by foreign companies. The four largest coal producers Cerrejón, Drummond, Prodeco and Colombian Natural Resources account for 93% of exports. Cerrejón is owned by Anglo American, BHP Billiton and Xstrata. Drummond is a family-owned business from the US. Prodeco is owned by the Swiss company Glencore and Colombian Natural Resources is owned by the US bank Goldman Sachs.

Although the Colombian government claims that the mining industry is a "development locomotive", the regions affected by coal mining are among the poorest in the entire country - not

least because small farmers and indigenous communities were dispossessed for the mines. In Guajira where the Cerrejón mine is based, communities suffer from chronic health problems and 50% of indigenous Wayúu children are severely undernourished. Communities such as Tabaco were forcibly displaced and have still not been resettled. Cerrejón is currently planning to expand its operations by rerouting the Rancheria River in order to mine 500 million tons of coal beneath the river bed. This river is the lifeline of the Wayúu communities and without its waters, agriculture is impossible in this semi-arid region. The Wayúu are therefore waging a desperate battle to stop Cerrejón's expansion plans and to preserve the river, their culture and their livelihoods from destruction.

Another pressing problem in the Colombian coal sector is violence. Paramilitary forces waged a reign of terror in the main coal mining provinces La Guajira and Cesar over many years. Although the situation has improved since the official demobilisation of the paramilitary, human rights abuses and repression are still rampant in these regions. In April 2013, for example, the new paramilitary unit "Rastrojos" publically threatened to murder leading members of the coalminers unions Sintracarbon and Sintramienenergetica as well as human rights activists. In Colombia such threats are not idle. One of the country's largest coal producers, the US company Drummond is currently in court as it is accused of having paid paramilitary units to murder the union leaders Valmore Locarno Rodriguez and Victor Hugo Orcasita, who were shot dead in 2001. This has not stopped the German energy companies EnBW, RWE and E.ON from buying coal from Drummond.

Russia

Most of the coal exported to Europe from Russia comes from the Kuznetsky Basin (Kuzbass) in the region Kemerovo. Decades of coal mining have poisoned the air and water of the Kuzbass region and led to disastrous impacts for the population. The concentration of air pollutants is at minimum two to three times as high as in the rest of Russia. And according to the official report "State of the environment in the region Kemerovo in 2011", drinking water in the vicinity of the mines is highly polluted. Abandoned mines leach heavy metals into the water ways and even the soils of the region are severely contaminated, so that agricultural products contain high levels of lead, cadmium, mercury and arsenic. Accordingly, sickness and death rates have respectively risen to 19 and 20 % between 1993 and 2006 and the life expectancy of citizens is much lower than in other parts of Russia. Mining also takes a serious toll on the indigenous Shor and Teleut tribes as their ancestral lands and culture are being destroyed. The Shors, who live almost exclusively in Kemerovo, are standing on the brink of extinction. In spite of these costs, Russia has become the second most important source of foreign coal for German power plants.

USA

Although demand for coal is dropping in the U.S., coal exports are on the rise. Coal exports to Germany alone increased by 50% over the last year. Around 75% of the exported coal comes from Appalachia, where Mountaintop Removal (MTR) is a common practice. MTR is the most brutal method of coal extraction. The tops of the mountains are literally blown up and the overburden is thrown into adjoining valleys, where it pollutes the waterways. Over 500 mountains and 2,000 miles of clear mountain streams as well as 6,500 square kilometers of unique forests have been destroyed in Appalachia. This is a real tragedy as Appalachia is a veritable "Noah's ark" of biodiversity and harbours over 10,000 plant and animal species, many of which are endemic.

The method of mining also has extreme impacts on the health of local communities. Over the past 4 years, some 20 peer-reviewed health studies have shown that MTR-affected communities suffer from high rates of cancer, birth defects, heart problems and other diseases. Physicians estimate that Mountaintop Removal mining causes over 4,000 "excess deaths" every year in Appalachia.

German utilities nonetheless continue to buy their coal from MTR-companies like Alpha Natural Resources, Arch Coal, Patriot Coal and Consol Energy.

South Africa

Up until 2006, South Africa was Germany's most important supplier of hard coal. In 2012, almost 8% of the coal burned in German power plants still came from South Africa, making it the number 4 supplier.

South Africa is a water-stressed country, where rainfall is scarce and unevenly distributed so that drinking water often has to be pumped over hundreds of kilometers. The coal industry, however, is one of the biggest users and polluters of water. Although mining companies are legally required to apply to South Africa's National Water Commission for a water permit, about one third of the country's coal mines are operating without such a permit. In a country where water shortage is a permanent problem, coal mines are threatening to deplete and contaminate water supplies. South Africa's most important coal mining region is Mpumalanga, where most of the country's water reserves are generated. Here, the coal mines are poisoning the environment by leaking highly acidic mine water laced with heavy metals into the waterways. Acid mine drainage is an immense problem and can continue contaminating water resources for decades after mines have been closed.

South Africa's export harbor is Richard's Bay, which has the largest coal terminal in the world. Its motto is "Coal to the world and wealth to the nation". In reality, South African coal exports, however, threaten the food and water security of the poor and undermine the country's chance to provide its children with clean drinking water.

Germany's Large Energy Companies

Energy Company	Energy produced from hard coal in billion kWh	Rank based on amount of energy produced per year in Germany
RWE	36,4	1
E.ON	25,4	2
STEAG	30 (estimated)	5
EnBW	16,2	4
Vattenfall	5,1	3

RWE

... is the biggest electricity producer in Germany. The company mainly burns hard coal and lignite. Its main office is in Essen, in the State of Northrhine-Westphalia. RWE owns several gigantic open pit lignite mines in Germany. Municipalities are among the company's biggest shareholders and collectively own about 23% of RWE's stock. RWE is also Europe's number one source of greenhouse gas emissions. In 2012, RWE imported 29 % of its hard coal from Columbia, 18.5 % from Russia, 12 % from the USA and 4.5 % from South Africa.

E.ON

... is the second biggest energy company in Europe. Despite its slogan "cleaner & better energy", coal is E.ON's main energy source. The company is currently building two additional coal-fired power plants in Germany and Russia and has massive investment plans in Turkey and Brazil, which would result in a whole fleet of new coal-fired power plants. In 2012, E.ON imported 39 % of its hard coal from Columbia, followed by the USA (28 %), Russia (22 %) and South Africa (5 %).

STEAG

... is mainly owned by seven municipal electricity providers in Northrhine-Westphalia. It is not listed on the Stock Exchange and therefore has no public shareholder meetings. STEAG almost exclusively uses hard coal to produce its electricity. Information about the origin of the coal and the environmental and social conditions of its supplier mines are kept under wraps. In response to our queries, STEAG was only willing to confirm that it imports coal from Colombia, USA, Russia,

South Africa and Poland.

EnBW

... is mainly owned by the federal state of Baden-Württemberg, which is currently ruled by a coalition of greens and social-democrats. Though EnBW's share of renewable energy is not big (12%), it is still larger than that of any of the other big electricity companies in Germany. EnBW mainly operates hard coal power plants and still has one nuclear power plant, but no lignite-fired power plants. The biggest source of its hard coal supply in 2012 was Russia (30%) followed by the USA (24%) and Columbia (23%). 12,2% of EnBW's coal was imported from South Africa. EnBW claims to apply sustainability standards to ensure human rights and environmental protection, but at the same time refuses to publish these standards. Up to now, the company has consistently refused to take action, even in cases where its coal suppliers are accused of severe human rights violations.

Vattenfall

... is owned by the Swedish State. In Germany, the company runs coal-fired power plants in the regions around Hamburg and Berlin. Currently, **Vattenfall** is building a lignite power plant in the east of Germany and owns Germany's largest new hard coal power plant in Hamburg-Moorburg. In 2012, Vattenfall imported 40% of its hard coal from the USA, 35 % from Poland and 22 % from Russia. With 10.000 tons of hard coal needed to feed Moorburg, the import of Columbian coal is also expected. With an expected CO₂ output of 8,5 million tons per year, this power plant will become one of the biggest source of CO₂ emissions in Germany.

Better Coal?

Several international energy companies, including RWE and E.ON, launched an initiative called "Better Coal" in 2010. While the stated intention of this initiative is to realize the "vision of a coal supply chain that protects the environment", NGOs see it as just another attempt to greenwash an extremely dirty fuel. How little trust RWE, E.ON and Co. put in their own promises is evidenced by the fact that these companies refuse to divulge the names of the mines from which their coal originates. The so-called Better Coal standards are weak and vague, but even the best guidelines would be of little use as long as the companies refuse to make their supply chain transparent.

Bitter Coal

It's time for Germany to confront the bitter reality of its coal imports. German energy companies must stop building further coal-fired power plants and focus their investments on the transition to renewable energy sources. A phase-out plan must be developed for existing coal-fired power plants and in the interim, standards must be developed and implemented for imported coal:

- Energy companies must take full responsibility for their coal imports and publish the names of the mines and companies, that are part of their supply chain.
- Coal suppliers who are mining protected areas, practicing MTR or mining in water-stressed areas where drinking water reserves for the local population are endangered, must be excluded.
- Mining companies who abuse human rights, are involved in land rights conflicts with the local population or do not respect basic worker's rights must also be excluded.
- Energy companies must apply strong environmental and social standards to their suppliers and monitor their implementation through independent audits with community participation.



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